

## CLIMATOLOGICAL DATA FOR OCTOBER, 1913.

## DISTRICT NO. 11, CALIFORNIA.

Local Forecaster G. H. WILLSON, District Editor.

## GENERAL SUMMARY.

October, 1913, was a month of unusually pleasant weather, with a large number of warm, sunshiny days, moderately cool nights, and an exceptionally light rainfall. The temperature was slightly above the normal in all sections, and while no records were broken for high temperatures, there were two warm periods, one from the 1st to the 3d and the other from the 18th to the 24th, when the day temperatures in the great valley and along the coast ranged from  $90^{\circ}$  to  $100^{\circ}$ . A peculiar feature was the location of the stations reporting the highest temperature during the month: Healdsburg, in a northern coast valley, Ojai Valley, on the southern coast, and Indio in the Colorado desert, each reporting a maximum temperature of  $101^{\circ}$ . The lowest temperature,  $7^{\circ}$ , occurred at Greenville in Plumas County.

There were a very large number of clear days during the month and the percentage of sunshine exceeded the average at all stations. The weather was ideal for fruit drying and raisin making, and these crops were harvested without damage. Citrus fruit made excellent growth, and the outlook for an early harvest is excellent.

The precipitation was very light in all sections and much below the normal. There were a few scattered showers from the 6th to the 8th, and again on the 30th and 31st. This was the driest October since the records for the State began in 1897, and probably one of the driest ever known in this State. The rivers approximate the lowest stages ever known, many wells and springs have gone dry, water and power companies are taxed to their limits, and there is not sufficient water for irrigation purposes in most places. There were many forest fires in all portions of the State, and much damage has been caused by them.

## TEMPERATURE.

The mean temperature for the State was  $0.8^{\circ}$  above the normal. The following table gives the means and departures for each October from 1897 to 1913, inclusive:

Year.	Mean.	Departure.	Year.	Mean.	Departure.
1897.....	58.5	-2.6	1906.....	63.4	+2.3
1898.....	61.0	-0.1	1907.....	62.0	+0.9
1899.....	58.1	-3.0	1908.....	58.3	-2.8
1900.....	58.8	-2.3	1909.....	60.2	-0.9
1901.....	63.2	+2.1	1910.....	61.9	+0.8
1902.....	60.7	-0.4	1911.....	59.1	-2.0
1903.....	64.0	+2.9	1912.....	57.1	-4.0
1904.....	61.6	+0.5	1913.....	61.9	+0.8
1905.....	60.7	-0.4			

## PRECIPITATION.

The following table gives the average precipitation and departure from the normal for each October from 1897 to 1913, inclusive:

Year.	Average.	Departure.	Year.	Average.	Departure.
	Inches.	Inches.		Inches.	Inches.
1897.....	1.79	+0.34	1906.....	0.09	-1.36
1898.....	0.59	-0.86	1907.....	1.56	+0.11
1899.....	3.50	+2.05	1908.....	1.37	-0.03
1900.....	2.34	+0.89	1909.....	1.66	+0.21
1901.....	1.50	+0.05	1910.....	0.83	-0.62
1902.....	1.78	+0.33	1911.....	0.58	-0.87
1903.....	0.49	-0.96	1912.....	0.36	-1.09
1904.....	2.74	+1.29	1913.....	0.08	-1.37
1905.....	0.12	-1.33			

The greatest monthly amount was 3.92 inches at Weitchpec and the greatest 24-hourly amount was 2.55 inches on the 7th, at the same station. There was no rainfall at 131 stations.

Stations.	Sunshine.	
	Hours.	Percentage of possible.
Eureka.....	221	64
Fresno.....	323	93
Los Angeles.....	283	80
Mount Tamalpais.....	315	91
Red Bluff.....	290	84
Sacramento.....	326	94
San Diego.....	261	83
San Francisco.....	297	85
San Jose.....	299	86
San Luis Obispo.....	265	76

## NOTES ON THE RIVERS OF THE SACRAMENTO AND LOWER SAN JOAQUIN WATERSHEDS DURING THE MONTH OF OCTOBER, 1913.

By N. R. TAYLOR, Local Forecaster.

*Sacramento watershed.*—There was little difference between the average stages of the rivers in this watershed during October and those of the preceding month. All streams continued exceptionally low, and some unprecedentedly so. The Sacramento River between Red Bluff and Walnut Grove averaged from 2 to over 3 feet lower than the usual October stages. The Feather River was the lowest of which there is a record, and the Yuba and American Rivers averaged only one-tenth of a foot above the stages of the preceding month, when the low-water record for both streams was broken.

Practically no precipitation occurred in any section of the drainage basin of the Sacramento, the month being one of the driest in the history of this section.

Numerous wells, springs, and some water courses have failed, and in some cases are completely dry. All hydroelectric plants have experienced considerable difficulty in running, and none has a full head of water.

Navigation on the Sacramento between Sacramento City and the bay was uninterrupted during the month. It was fairly good as far up as Colusa, but the channel has become tortuous and perplexing, with barely sufficient water for the upriver steamers.













TABLE 2.—*Daily precipitation for October, 1913. District No. 11—Continued.*

Stations.	Watershed.	Day of month.																													Total.									
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31								
<i>California—Contd.</i>																																								
Tustin (near).....	Coast.....	.10																																0.10						
Ukiah.....	do.....																																.01	0.05						
Upper Lake.....	Sacramento.....																																	T.	T.					
Upper Mattole.....	Coast.....																																			.11	0.79			
Vacaville.....	Sacramento.....																																			0.00				
Valley Springs.....	San Joaquin.....																																			T.	T.			
Visalia.....	do.....																																			0.00				
Warner Springs.....	Coast.....	T.	.18																																	0.18				
Wasco.....	San Joaquin.....																																							
Watsonville.....	Coast.....																																							
Weaverville.....	do.....																																					.10	0.10	
Welchespec.....	Klamath.....																																					0.09		
West Branch.....	Sacramento.....																																						3.92	T.
Westley.....	San Joaquin.....																																						0.00	
West Point.....	do.....																																						T.	T.
West Saticoy.....	Coast.....																																						0.00	
Wheatland.....	Sacramento.....																																						0.00	
Willows.....	do.....																																						T.	T.
Yorba Linda.....	Coast.....																																						0.00	
Yosemite.....	San Joaquin.....																																						.01	0.01

\* Precipitation included in that of the next measurement.

† Separate dates of falls not recorded.

|| Precipitation for the 24 hours ending on the morning when it is measured.

T. Precipitation is less than 0.01 inch rain or melted snow.

